

云南毛茛科新分类群

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摘要: 描述了云南高黎贡山毛茛科银莲花属 1 新变种, 铁线莲属 2 新种和毛茛属 2 新种。

关键词: 云南; 毛茛科; 银莲花属; 铁线莲属; 毛茛属; 新分类群

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New Taxa of Ranunculaceae from Yunnan

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**Abstract:** In this paper, one variety and four species of Ranunculaceae, *Anemone yulongshanica* W . T . Wang var. *glabrescens* W . T . Wang, *Clematis tengchongensis* W . T . Wang, *C. lushuiensis* W . T . Wang, *Ranunculus pianmaensis* W . T . Wang and *R. tengchongensis* W . T . Wang, are described as new on the basis of the plant specimens collected from Gaoligong Shan, western Yunnan Province, China in recent years .

**Key words:** Yunnan; Ranunculaceae; *Anemone*; *Clematis*; *Ranunculus*; new taxa

今年十月下旬, 美国加利福尼亚州科学院的 Bruce Bartholomew 博士寄来他和中国科学院昆明植物研究所李恒教授近十年来在云南高黎贡山一带采集的丰富毛茛科植物标本, 托我鉴定, 在鉴定过程中发现该科银莲花属 1 新变种, 铁线莲属和毛茛属各 2 新种, 现在本文予以发表。

银莲花属 *Anemone* L .

福贡银莲花 (变种) 图 1: A~C

*Anemone yulongshanica* W . T . Wang var. *glabrescens* W . T . Wang, var . nov . Fig . 1: A-C

A var. *yulongshanica* et var. *truncata* (Comber) W . T . Wang scapis et petiolis glabris differt, quoad amplitudinem laminarum foliorum basaliu (0.8 - 2.3 × 1 - 4 cm) et sepalorum numerum et colorem ad var. - *truncatam* magis accedit .

Scapi 5.5 - 21 cm longi . Folia basalia: petioli 3

- 10 cm longi; laminae 0.8 - 2.3 cm longae, 1 - 4 cm latae, 3-partitae, interdum 3-sectae . Sepala 5, coerulea vel alba, 7 - 13 mm longa, 3 - 9 mm lata .

Yunnan . Fugong Xian (福贡县): Lumadeng Xiang, Yaping Cun, in the vicinity of Yaping Yakou just E of the pass near the Myanmar border, E side of Gaoligong Shan, elev . 3 600 m, perennial herb common, growing in wet meadow, sepals blue or white, 5 August 2005, Gaoligong Shan Biodiversity Survey 26397 (holotype, PE; isotype, CAS) [Participants: Li Heng, Dao Zhiling, Ji Yunheng, Liu Benxi & Tang Anjun (KUN); B . Bartholomew & Lihua Zhou (CAS); Jin-Hynb Paik & S . A . Crutchley (E)]; same locality, elev . 3 640 m, perennial herb frequent, growing in wet meadow, sepals blue to white, 5 August 2005, GSBS 26453 (CAS, PE); same locality, elev . 3 600 m, perennial herb abundant, growing on wet

slope by lake, 24 August 2005, GSBS 28024 (CAS, PE); same locality, Lishadi Xiang, Yaduo Cun, elev. 3 640 m, perennial herb abundant, growing on wet slope by stream, sepals white or blue, 24 August 2005, GSBS 28042 (CAS, PE); same locality, Yaping Xiang, elev. 3 106 m, perennial herb growing at wet area, sepals white, blue abaxially, 8 May 2004, GSBS 20441 (CAS) [Participants: Li Heng, Dao Zhiling, Li Rong, Jiang Zhutang & Ji Yunheng (KUN); P. Fritsch & Lihua Zhou (CAS); K. Armstrong (E)] .

玉龙山银莲花 *Anemone yulongshanica* W. T. Wang (王文采, 1996) 隶属银莲花属纯裂银莲花组 sect. *Himalayicae* (Ulbr.) Juz. (Tamura, 1995), 其主要特征为叶片轮廓卵形, 掌状3深裂, 基部心形或近截形, 萼片5或6枚; 原知包含2变种: (1) 模式变种 var. *yulongshanica*, 特产云南丽江玉龙雪山, 其特征为植株较高大, 基生叶叶柄长6~11 cm, 与花萼均被短柔毛, 叶片长达6 cm, 萼片6枚, 白色; (2) 截基银莲花 var. *truncata* (Comber) W. T. Wang 分布于云南丽江, 四川木里, 其特征为植株较低矮, 基生叶叶柄长4~5 cm, 与花萼均密被较长柔毛, 叶片长达3.5 cm, 萼片5(-6)枚, 呈白色、黄色或蓝色。上列采自云南福贡的5号标本代表了同一分类群, 在基生叶形态、花构造等方面均与玉龙银莲花相似, 因此将其处理为此种的第三个变种。此新变种的叶柄和花萼均无毛, 可与上述其他二变种相区别; 其基生叶叶片较小, 长达2.3 cm, 萼片5枚, 呈蓝色或白色, 根据这些特征可见此变种在亲缘关系上与 var. *truncata* 更为接近。

铁线莲属 *Clematis* L.

腾冲铁线莲 图 1: D~E

*Clematis tengchongensis* W. T. Wang, sp. nov. (Sect. *Cheirosia* DC) Fig. 1: D-E

Species nova haec est fortasse affinis *C. brevipedis* Rehd., quae ramis glabris vel ad nodos tantum sparse puberulis, foliis 5-foliolatis pinnatis, foliolis supra ad nervos sparse albo-puberulis, sepalis late obovatis vel orbiculari-rhombicis facile differt.

Liana lignosa. Caulis circ. 2 m longus, ramis

teretibus circ. 2 mm in diametro, dense strigosis. Folia opposita, ternata; foliola papyracea, rhombico-ovata, 1.8 - 4 cm longa, 1 - 2.6 cm lata, apice acuta, basi late cuneata, medio 3-fida, margine paucis dentata, supra dense luteolo-strigosa, subtus dense pubescentia, nervis basalibus et lateralibus subtus prominulis, petiolulis 2.5 - 9 mm longis; petioli 1.3 - 3 cm longi, cum pedunculis et pedicellis dense luteolo-strigosi. Cymae axillares, 3-florae; pedunculi 7 - 8.5 cm longi; bracteae breviter petiolatae, rhombico-ovatae vel rhombico-ellipticae, 2 - 2.4 cm longae, margine 2-denticulatae vel integrae; pedicelli 4 - 5 cm longi; flores apicales singulariter axillares, pedicellos 4.2 - 5 cm longos ferentes. Flos 4.5 - 5 cm in diametro; sepala 4, alba, patentia, late elliptica, circ. 2.8 cm longa, 1.1 - 1.3 cm lata, apice acuta, brevissime apiculata, intus glabra, extus depresso puberula, juventute margine velutina; stamina circ. 50, 6 - 9 mm longa, glabra, filamentis linearibus, antheris oblongis 2 - 2.5 mm longis apice obtusis raro inconspicue apiculatis; carpella numerosa, circ. 8 mm longa, ovarii circ. 1 mm longis dense pubescentibus, stylis dense villosis.

Yunnan. Tengchong Xian (腾冲县): Mazhan, Dakong Shan volcano, elev. 1 940 m, on outer side of volcano among shrubs and grass; vine ca. 2 m long, rare, sepals yellow, stamens greenish yellow, 2 June 2006, Gaoligong Shan Biodiversity Survey 29896 (holotype, CAS) [Participants: Li Heng, Dao Zhiling, Ji Yunheng & Jin Xiaohua (KUN); Bruce Bartholomew & Lihua Zhou (CAS); Neil McCheyne (E)] .

本种花的萼片4枚, 白色, 水平展开, 呈宽椭圆形, 外面边缘在花蕾时期被短绒毛, 但开放后边缘毛变稀疏, 雄蕊无毛, 花丝条形, 花药长圆形, 具有这些形态特征应是隶属绣球藤组 sect. *Cheirosia* DC. (王文采, 2002) 的一个新成员。在绣球藤组中, 本种稍近特产甘肃南部的短梗铁线莲 *C. brevipes* Rehd., 但本种的枝条密被糙伏毛, 叶为三出复叶, 小叶上面密被淡黄色糙伏毛, 萼片呈宽椭圆形, 而与短梗铁线莲有明显区别。在后者, 枝条无毛或只在节上疏被短柔毛, 叶为具5小叶的羽状复叶, 小叶上面脉上疏被白色短柔毛, 萼片呈宽倒卵形或圆菱形。

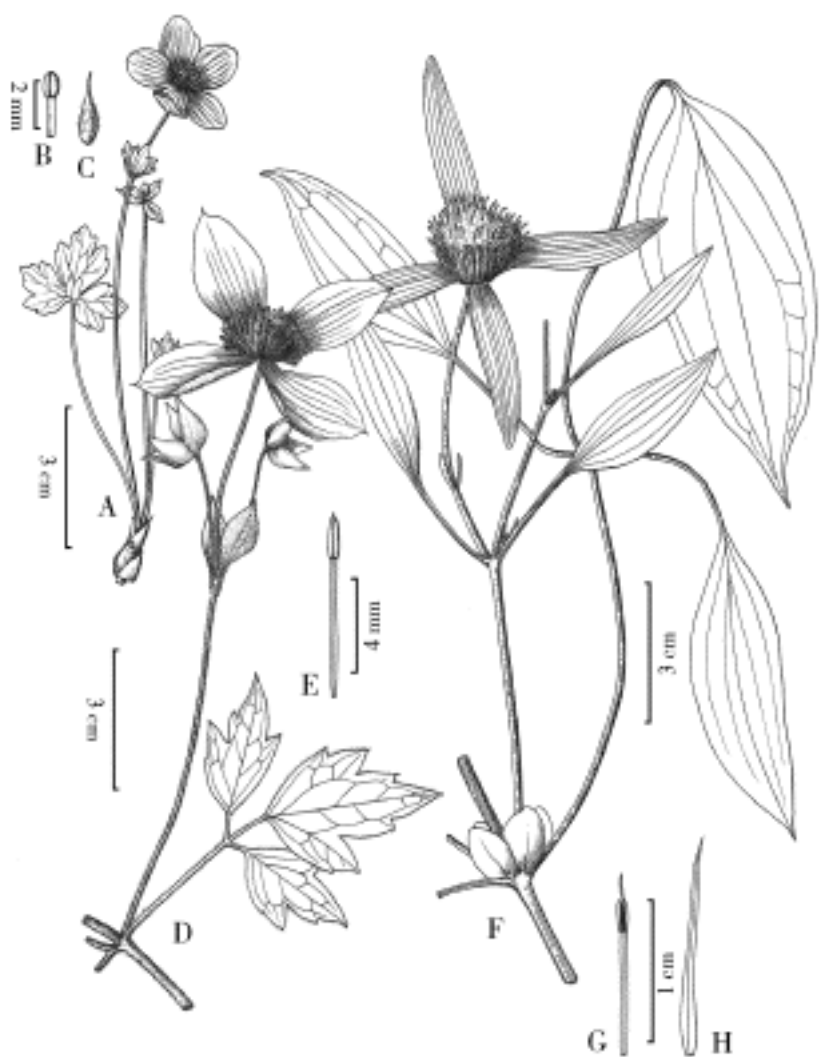


图 1 A~C: 福贡银莲花 A. 植株全形; B. 雄蕊; C. 心皮  
(自 GSBS 29896); D~E: 腾冲铁线莲 D. 花枝; E. 雄蕊  
(自 GSBS 27957); F~H: 泸水铁线莲 F. 花枝; G. 雄蕊;  
H. 退化雄蕊 (自 GSBS 26453)

Fig. 1 A-C *Anemone yulongshanica* W. T. Wang var. *glabrescens* W. T. Wang. A, habit; B, stamen; C, carpel. (from GSBS 29896); D-E *Clematis tengchongensis* W. T. Wang. D, flowering branch; E, stamen. (from GSBS 27957); F-H *Clematis lushuiensis* W. T. Wang. F, flowering branch; G, stamen; H, staminodes (from GSBS 26453)

### 泸水铁线莲 图 1: F~H

*Clematis lushuiensis* W. T. Wang, sp. nov.  
(sect. *Naraveliopsis* Hand. -Mazz. Fig. 1: F-H)

Ob sepalorum colorem, formam et amplitudinem species nova haec est similis *C. pianmaensis* W. T. Wang, quae ut species nova etiam in Lushui endemica est et foliis 5-foliolatum pinnatis, petiolis basi laminis stipuliformibus carentibus, sepalis extus velutinis, staminibus omnibus fertilibus statim ab ea recedens.

Liana lignosa. Caulis circ. 5 m longus, glaber, ramis longitudinaliter 4 - 6-canaliculatis. Folia opposita, ternata, glabra; foliola chartacea, elliptico-ovata vel oblongo-ovata, 6 - 9.2 cm longa, 2 - 3.6 cm lata, apice acuminate, basi late cuneata vel cuneata, margine integra, trinervia, nervis lateralibus 1-jugis supra

folioli basin usque ad 5 - 10 mm e costa mediana sub angulo acuto folioli apicem versus abeuntibus subtus subplanis, petiolulis 3 - 6 cm longis; petioli 9 - 10.5 cm longi, basi utrinsecus laminis stipuliformibus semi-orbicularibus vel semicordatis 0.6 - 1.4 cm longis 3 - 9 mm latis praediti. Cymae terminales circ. 16 cm longae 9-florae, paniculiformes, eae axillares 3-florae, omnes glabrae; pedunculi 7 - 20 cm longi; bractae petiolatae, foliiformes vel simplices, anguste ovatae vel anguste oblongae, circ. 6 cm longae; pedicelli 3 - 15.5 cm longi. Flos 7 - 8 cm in diametro; sepala 4, lutea, patentia, papyracea, lineari-lanceolata vel late linearia, 4 - 4.4 cm longa, 8 - 9 mm lata, apice attenuata, utrinque glabra, extus ceracea, longitudinaliter 8-nervia; stamina numerosa, anguste linearia, 1 - 2.2 cm longa, 0.5 - 1 mm lata, glabra, multa antheris carentia et in staminodia transientia, aliquot fertilia, antheris anguste oblongis circ. 3 mm longis apice, apiculis anguste ligulatis vel subulatis 1.5 - 3 mm longis instructa; carpella numerosa, 1 - 1.5 cm longa, ovariis circ. 1 mm longis dense pubescentibus, stylis dense villosis.

Yunnan. Lushui Xian (泸水县): Luobenzhuo Xiang, Baodeng Cun, E side of Gaoligong Shan, elev. 2450 m, in subtropical evergreen broadleaf forest, vine ca. 5 m long, occasional, flowers yellow, 22 August 2005, Gaoligong Shan Biodiversity Survey 27957 (holotype, CAS; isotype, PE).

本种花的萼片 4 枚, 水平开展, 雄蕊无毛, 花药顶端具突出的长尖头, 应是菝葜叶铁线莲组 sect. *Naraveliopsis* Hand. -Mazz. 的第 21 位成员 (王文采, 2006)。在此组中, 本种在萼片的颜色、形状和大小等方面都与特产同一泸水县片马镇的片马铁线莲 *C. pianmaensis* W. T. Wang (花的萼片 4 枚, 黄色, 披针状长圆形, 长 2.7~3.5 cm, 宽 8~10 mm) 十分相似, 而可能有一定亲缘关系, 但本种的叶为三出复叶, 叶柄基部两侧各有 1 个托叶状的小叶片, 萼片无毛, 雄蕊中有多数无花药, 成为退化雄蕊而与片马铁线莲有明显区别。在后者, 叶为具 5 小叶的羽状复叶, 叶柄基部无托叶状小叶片, 萼片外面密被短绒毛, 雄蕊全部能育。

在铁线莲属, 多数种的萼片内面无毛, 外面

多少有毛, 有些种则内、外两面都有毛, 萼片无毛的种只有 2 个: 绣球藤组 sect. *Cheiropsis* DC. (王文采, 2002) 的槭叶铁线莲 *C. acerifolia* Maxim. (包含 2 变种: var. *acerifolia* 特产北京; var. *elobata* S. X. Yan 特产河南济源和修武) 和威灵仙组 sect. *Clematis* 特产俄国远东地区的 *C. sichotealinensis* Ulanova (王文采, 2003)。本种的萼片无毛, 是铁线莲属种第 3 个萼片无毛的种。

毛茛属 *Ranunculus* L.

### 片马毛茛 图 2

*Ranunculus pianmaensis* W. T. Wang, sp. nov. (Sect. *Ranunculus*) Fig. 2

Species nova haec acheniis utrinque leviter convexis fortasse ad sect. *Ranunculum* pertinet et in eo est aliquantum similis *R. nephelogeni* Edgew., qui foliis margine integris raro 1-dentatis, floribus singulariter terminalibus majoribus, petalis 6 - 8 mm longis, eorum foveolis nectariferis squamis carentibus, acheniis utrinque magis convexis facile differt; habitu ea est similissima *R. triangulari* W. T. Wang (sect. *Ficariifolium* L. Liou), qui acheniis tuberculatis, petalis orbiculari-obovatis valde distinguitur.

Herba perennis. Caulis 25 - 40 cm altus, e basi vel parte infera ramosus, superne sparsissime strigosus. Folia basalia circ. 2, vulgo cito emarcida, longe petiolata, laminis papyraceis longe ovatis circ. 3.5 cm longis 1.3 cm latis apice attenuatis basi subrotundatis margine denticulatis sparsissime ciliolatis utrinque glabris, petiolis 3.8 - 5 cm longis glabris basi anguste vaginatis; ea caulina longe vel breviter petiolata, laminis ovatis subtriangularibus late lanceolatis vel lanceolatis 1.2 - 4.6 cm longis 0.5 - 1.5 cm latis basi rotundatis vel late cuneatis raro subcordatis utrinque glabris vel subtus sparse strigosis, petiolis 1.2 - 4 cm longis. Cincinni terminales et axillares, 3 - 6-flori; bracteae breviter petiolatae vel subsessiles, longe ovatae vel lanceolato-lineares, 0.8 - 2 cm longae, 1 - 8 mm latae, margine pauce denticulatae vel integrae; pedicelli graciles, 1 - 2.4 cm longi, glabri vel subglabri. Flos 7 - 8 mm in diametro; receptaculum tenuiter conicum, apice pilosum; sepala 5, naviculari-obovata, circ. 2 mm

longa, 1.1 - 1.2 mm lata, glabra vel supeme sparse ciliolata; petala 5, lutea, late oblonga vel late obovata, 2.5 - 4 mm longa, 1.8 - 4 mm lata, apice rotundata, basi brevissime unguiculata, foveolarum nectariferarum squamis late ovatis circ. 0.3 mm longis et latis; stamina circ. 15, 1.4 - 2 mm longa, glabra, filamentis linearibus 0.8 - 1.2 mm longis, antheris ellipticis 0.5 - 0.8 mm longis; gynoecium subglobosum, circ. 1.8 mm in diametro, carpellis numerosis anguste ovoideis 0.9 mm longis, stylis brevibus, stigmatibus punctiformibus. Achenia oblique late ovata, 1 - 1.2 mm longa, utrinque leviter convexa, glabra, laevia, stylis persistentibus 0.1 mm longis.

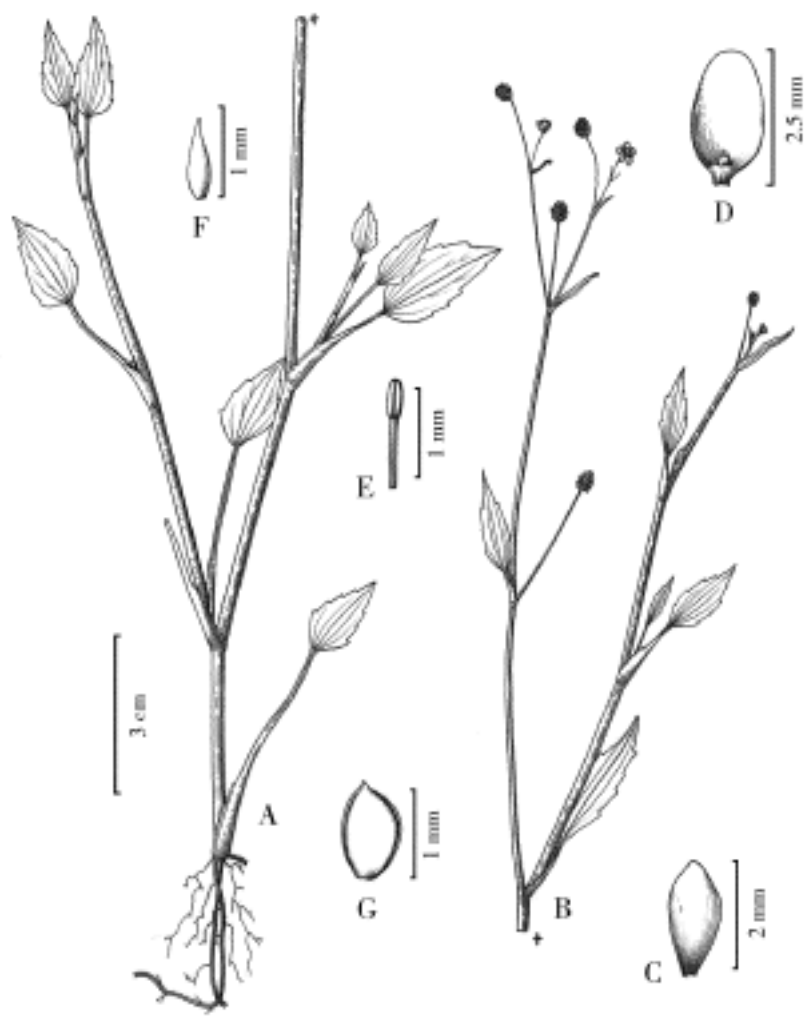


图 2 片马毛茛 A. 茎下部; B. 茎上部和顶生蝎尾状聚散花序; C. 萼片; D. 花瓣; E. 雄蕊; F. 心皮; G. 瘦果 (自 GSBS 22796)

Fig. 2 *Ranunculus pianmaensis* W. T. Wang, sp. nov. A. lower part of stem; B. upper part of stem and terminal cincinnus;

C. sepal outside; D. petal; E. stamen; F. carpel;

G. achene. (from GSBS 22796)

Yunnan. Lushui Xian (泸水县): Pianma (片马), Gangfeng Village, W side of Gaoligong Shan, elev. 1860 m, herb frequent, growing on a boulder among moss on limestone, flowers yellow, young fruits green, 14 May 2005, Gaoligong Shan Biodiversity Sur-

vey 24183 (holotype, PE; isotype, CAS); same locality, W of Pinama at the Myanmar border, elev. 1 830 m, herb rare, growing under forest, flowers yellow, fruits green, 12 May 2005, GSBS 22711 (CAS); same locality, along the river in the vicinity of Pianma hydroelectric station, elev. 1 820 m, herb occasional, growing along roadside, flowers yellow, 12 May 2005, GSBS 22796 (CAS, PE); same locality, along the Pianma River in vicinity of Pianma, elev. 1 950 m, herb rare, growing in wet bank of Pianma River, 16 May 2005, GSBS 23270 (CAS, PE); same locality, Gangfeng Village, elev. 1 600 m, herb frequent, growing by the stream in front shade, 18 May 2005, GSBS 23377 (CAS, PE); same locality, on slopes above Wuzhong River, W of Gulang Cun, elev. 1 859 m, herb occasional, growing in rivulet in sun, in humus on limestone, 4 May 2005, GSBS 24122 (CAS, PE).

本种的瘦果两侧稍微鼓起, 可能隶属于美丽毛茛组 sect. *Ranunculus* (Tamura, 1995); 在此组中与云生毛茛 *R. nephelogenes* Edgew. 稍相似, 在叶边缘有小齿, 花 3~6 朵组成蝎尾状聚伞花序, 较小, 花瓣只长约 2 mm, 密槽有小鳞片, 瘦果两侧稍微鼓起等特征与后者明显区别。在后者, 叶边缘全缘, 稀有 1 齿, 花单朵顶生, 较大, 花瓣长 6~8 mm, 密槽无鳞片, 瘦果两侧鼓起程度较大。本种在体态方面与西南毛茛组 sect. *Ficariifolium* L. Liou 的三角叶毛茛 *R. triangularis* W. T. Wang (王文采和李良千, 1987) 极为相似, 但后者的瘦果有瘤状突起, 花瓣成圆倒卵形, 与本种 (瘦果光滑, 花瓣呈宽长圆形或宽倒卵形) 有较大区别。

### 腾冲毛茛 图 3

*Ranunculus tengchongensis* W. T. Wang, sp. nov. (Sect. *Acris* Schur) Fig. 3

Species nova haec est affinis *R. trigono* Hand. - Mazz., qui caule et petiolis patule pubescentibus, petiolis brevioribus 1.4 - 18 cm longis, sepalis per anthesin reflexis, staminibus numerosis praeclare recedit.

Herba perennis. Caulis circ. 40 cm altus, e medio 2-ramosus, cum petiolis sparse longeque strigosus. Folia basalia circ. 3, longissime petiolata, laminis chartaceis ambitu pentagonis 2.5 - 3 cm longis 4 - 4.5

cm latis basi subtruncatis 3-sectis, segmentis medianis rhombico-obovatis 1.2 - 1.5 cm latis apice acutis basi cuneatis 3-lobatis margine denticulatis, eis lateralibus oblique obovatis inaequaliter ad medium 2-fidis, omnibus utrinque strigosis, petiolis 22 - 24.5 cm longis basi anguste vaginatis; folia caulina eis basalibus similia, sed minora et brevius petiolata. Cincinni terminales et axillares, 2 - 4-flori; bractee breviter petiolatae vel sessiles, foliis caulinis similes, sed minores vel lineares, 3 - 10 mm longae; pedicelli 0.8 - 3 cm longi, sparse strigosi vel subglabri. Flos circ. 7.5 mm in diametro; receptaculum subglobosum, apice pilosum; sepalis 5, patentia, obovata, 2.5 - 3 mm longa, 1.5 - 2 mm lata, extus longe strigosa; petala 5, lutea, late oblonga, 2 - 4.2 mm longa, 1.2 - 2 mm lata, apice rotundata, glabra, foveolarum nectariferarum squamis

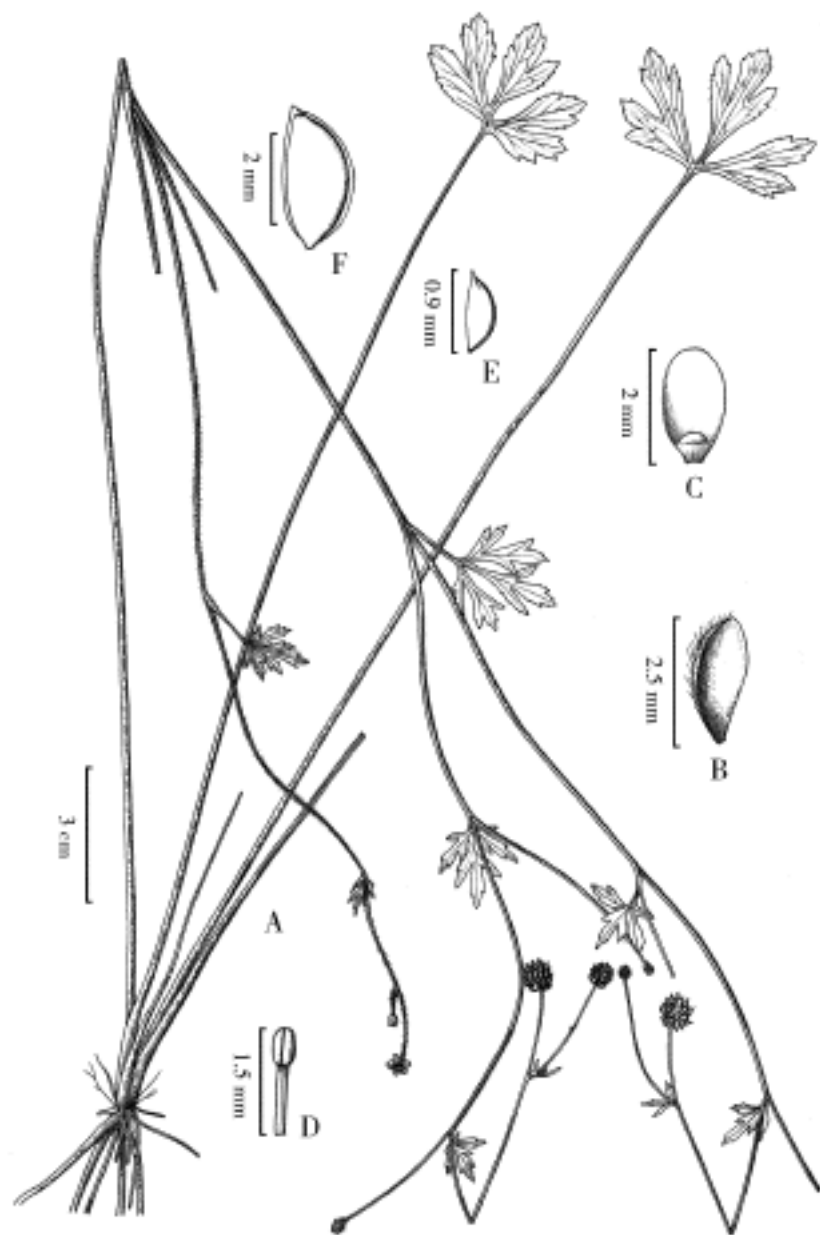


图 3 腾冲毛茛 A. 植株全形; B. 萼片; C. 花瓣; D. 雄蕊; E. 心皮; F. 瘦果 (自 GSBS 29700)

Fig. 3 *Ranunculus tengchongensis* W. T. Wang, sp. nov.

A. habit; B. sepal inside; C. petal; D. stamen; E. carpel;

F. achene (from GSBS 29700)

semiellipticis 0.25 mm longis 0.7 mm latis; stamina circ .10, 1.5 - 1.8 mm longa, glabra, filamentis linearibus 0.6 - 1 mm longis, antheris late ellipticis 0.7 - 1 mm longis; gynoecium subglobosum, circ . 2.2 mm in diametro, carpellis circ .20, 0.9 - 1 mm longis glabris, ovariis ovoideis, stylis brevissimis .Achenia complanata, oblique elliptica vel oblique obovata, 2.8 - 3.5 mm longa, 1.8 - 2 mm lata, glabra, laevia, secus suturas ventrales et dorsales anguste marginata .

Yunnan . Tengchong Xian (腾冲县): Daju, Beihai ca .12 direct km NNE of Tengchong, elev .1 730 m, perennial herb rare, growing in Sphagnum bog, in humus on volcanic, flowers yellow, 29 May 2006, Gaoligong Shan Biodiversity Survey 29700 (holotype, CAS) .

本种与在云南高原分布的棱喙毛茛 *R. trigonus* Hand . -Mazz . 有亲缘关系, 但茎和叶柄疏被糙伏毛, 叶柄较长, 长 22 ~ 24.5 cm, 萼片平展, 雄蕊较少, 10 枚, 而与后者不同。在棱喙毛茛, 茎和叶柄被开展柔毛, 叶柄较短, 长 1.4 ~ 18 cm, 萼片在花期反折, 雄蕊多数。

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## 参 考 文 献

- Tamura M, 1995 . *Anemone* L ., *Ranunculus* L . [A] . In: Hiepko P ed . Die Natürlichen Pflanzenfamilien . Zwei . Aufl [M] . Berlin: Duncker & Humblot, **17a** (4): 324—349, 412—435
- Wang WT (王文采), 1996 . Notulae de *Ranunculaceis sinensibus* (XIX) [J] . *Bull Bot Res Harbin* (植物研究), **16** (2): 155—166
- Wang WT (王文采), 2002 . A revision of *Clematis* sect . *Cheirolopsis* (Ranunculaceae) [J] . *Acta Phytotax Sin* (植物分类学报), **40** (3): 193—241
- Wang WT (王文采), 2003 . A revision of *Clematis* sect . *Clematis* (Ranunculaceae) [J] . *Acta Phytotax Sin* (植物分类学报), **41** (1): 1—62, (2): 97—172
- Wang WT (王文采), 2006 . A revision of *Clematis* sect . *Naraveliopsis* (Ranunculaceae) [J] . *Acta Phytotax Sin* (植物分类学报), **44** (6): 670—699
- Wang WT (王文采), Li LQ (李良千), 1987 . Notulae de *Ranunculaceis sinensibus* (X) [J] . *Acta Phytotax Sin* (植物分类学报), **25** (1): 24—38